

Amendments to the Claims

Claim 1. (Currently Amended) A method for inhibiting replication or transcription of a nucleic acid molecule indicative of a disease state, the method comprising:

targeting the nucleic acid molecule with an oligonucleotide; and,

binding of the oligonucleotide to the target nucleic acid molecule; wherein the oligonucleotide comprises a backbone nucleic acid sequence, and two arm nucleic acid sequences, and wherein the backbone nucleic acid sequence is complementary to one strand of the target nucleic acid molecule and the arms are complementary to the other strand of the target nucleic acid molecule, wherein the oligonucleotide backbone has one or more mismatches with the target nucleic acid sequence,

thereby, inhibiting transcription of the target nucleic acid molecule.

Claim 2. (Cancelled)

Claim 3. (Cancelled)

Claim 4. (Cancelled)

Claim 5. (Previously Presented) The method of claim 1, wherein the backbone and arms are complementary to a separate strands of a target nucleic acid molecule.

Claim 6-14. (Cancelled)

Claim 15. (Previously Presented) The method of claim 1 wherein the oligonucleotide has equal or higher specificity and affinity for a target oligonucleotide sequence than the complementary target oligonucleotide sequence.

Claim 16-40. (Cancelled)

Claim 41. (Currently Amended) A method for selectively treating cells comprising an infectious disease organism, comprising:

administering to the cells an oligonucleotide sequence that is complementary to a target nucleic acid molecule of an infectious disease organism, the cells comprising an oligonucleotide sequence of an infectious disease organism; ~~wherein,~~

wherein the oligonucleotide comprises a backbone nucleic acid sequence and two arm nucleic acid sequences, and wherein the backbone nucleic acid sequence is complementary to one strand of the target nucleic acid molecule and the arms are complementary to the other strand of the target nucleic acid molecule; wherein the oligonucleotide backbone has one or more mismatches with the target nucleic acid sequence,

thereby[;] inhibiting transcription of the target nucleic acid molecule.

Claim 42. (Currently Amended) The method of claim 41, wherein the cells are mammalian ~~or plant~~ cells.

Claim 43. (Currently Amended) The method of claim 41, wherein the cells are infected with a virus or bacteria, ~~protozoa or fungi~~.

Claim 44. (Cancelled)

Claim 45. (Previously Presented) The method of claim 41, wherein the oligonucleotide binds to a wild type infectious disease organisms' target gene sequence and any alleles or variants thereof.

Claims 46 - 58. (Cancelled)

Claim 59. (Original) A method for treating a mammal suffering from or susceptible to an infectious disease or cancer, the method comprising:
administering to the mammal a therapeutically effective amount of an oligonucleotide.

Claim 60. (Original) The method of claim 59, wherein the infectious disease is caused by or associated with a virus, bacteria, protozoa or fungi.

Claim 61. (Original) The method of claim 59, wherein the infectious agent is present in any tissue or organ of a mammal.

Claim 62. (Previously Presented) The method of, wherein the disease or disorder is associated with undesired expression of at least a portion of a sequence identified in tables 1, 2, 4, 5 or 6 above, or variants thereof.

Claim 63. (Previously Presented) The method of claim 59, wherein the administered oligonucleotide hybridizes with messenger RNA of the gene to inhibit expression thereof.

Claim 64. (Previously Presented) The method of claim 59, wherein administering the oligonucleotide results in inhibition of gene expression.

Claim 65. (Previously Presented) The method of claim 59, wherein the virus is HPV.

Claim 66. (Previously Presented) The method of claim 65 wherein the oligonucleotide that targets the HPV is identified by SEQ. ID. NO 2.

Claim 67. (Cancelled)

Claim 68. (Cancelled)

Claim 69. (Previously Presented) The method of claim 1, wherein inhibiting replication or transcription of a nucleic acid molecule treats a subject suffering from or susceptible to an infectious disease or cancer.

Claim 70. (Previously Presented) The method of claim 1, wherein inhibiting replication or transcription of a nucleic acid molecule treats a subject suffering from or susceptible to an infectious disease or cancer.

Claim 71. (Previously Presented) The method of claim 1, wherein inhibiting replication or transcription of a nucleic acid molecule treats a subject suffering from or susceptible to an infectious disease or cancer.

Claim 72. (Previously Presented) The method of claim 1, wherein inhibiting replication or transcription of a nucleic acid molecule treats a subject suffering from or susceptible to an infectious disease or cancer.